ANT/TIN/02

R NGEY.

P ARLES
MOUNTAINS

0051

1991

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48	Frost Rocks, Else Platform Mt McCarthy

Gradient Rdg 31-1-71
1013 m 4610 ft.
[illegible]
Mt [illegible]
926 4200 ft

		1.	2.	3
Billy Cans	3	✓	✓	✓
Plates	2	✓	✓	✓
Cups	2	✓	✓	✓
Dishes	2	✓	✓	✓
K.N.F.S	2	✓	Spn Rqd	✓
Kitbag	1	✓	✓	✓
Matches	2 Lg. Pkt.	✓ 1	✓	✓
Small Funnel		✓	✓	✓
Meta Tabs	2 pks	1	✓	1
Frying Pan	1	✓	✓	✓
Fuel J'can	2	✓	✓	✓
Tin Opener	1	✓	✓	✓
Brush Whisk		✓	✓	✓
Brush Soft		✓	✓	✓
Ration Packs	2	✓	✓	✓
Toilet Roll	3	✓	✓	✓
Paper Roll	2	✓	✓	✓
Primus	1	✓	✓	✓
Ice Axes	2	✓	✓	✓
Primus Rep. Kit		✓	✓	✓
Tent Repair Kit		✓	✓	✓
Wire Wool		✓	✓	✓
Mop		✓	✓	✓

MAPS

A. BEAVER LAKE C, D.

B. CROHN MASSIF C. D.
MT HICKS B.

C. MT HICKS B
FISHER MASSIF A
~~BEAVER LAKE C D~~

D CROHN MASSIF A. B
BEAVER LAKE A.

PHOTOS. A MT BUNT.

PHOTOS.

A.	Mt Hollingshead	Crohn P 60
	Mt Afflick	✓
	Mt Trott	✓
	Mt Bunt	✓
	Mt Butterworth	Probably visited by Crohn
	Mt McGregor	✓ Probably visited by Crohn
	Mt Grimsley	✓ Probably visited by Crohn
	Mt Abbs	✓ Probably visited by Crohn
	Hall Ntks	
	McLean Ridge	Probably visited by Crohn
	Baseline Ntks	Crohn P. 61
	Francey Hill	Probably visited by Crohn
	Murray Dome	✓
	Masson Ridge	✓
	Saxton Ridge	✓ Visited by Crohn
	Thomson Massif	✓ Visited by Crohn
	White Massif	✓ Visited by Crohn
	Radok Lake	
	McLaren Ridge O'Leary Ridge Inland Flagstone Bench	See [illegible] G[illegible] Photos

Area A

Goodall Ridge
Mayman Ntk
Mt Beck
Brocklehurst Ridge

AREA B

CROHN MASSIF E MT FORECAST CROHN
MT BROWN COOPER
MT McMAHON
MT BEWSHER CROHN. GRAINGER
CROHN MASSIF D. HUSKY DOME
MT. KIZAKI
MT DOWIE
MT HOLLINGSHEAD - CROHN P. 60
GORMAN CRAGS

WALL PEAK
SCANLON PEAK
LENSON PEAK
SIMON RIDGE
MT THOMAS
MT HICKS
CHAPMAN NTK
NTKS SOUTH OF MT HICKS

Crown massif

Mainly steep dipping metasedi and Gneiss striking E-W with Charnockite along southern flank, Photos taken at Charnockite Charnockite-Gneiss contact,

Specs Charnockite
Acid Gneiss
Meta Sed

Alt 4900 MSP

Sunset 0030 3 min
1730

[illegible] Dip in well

Aircraft [illegible]

5400 2730
4040 3150
[illegible]

0

6815

8438
8452

Cloud 1/4 gen
15 kts
+20°F 980.00 mb

Mt Hay   Photo 8053

Acid gneisses with Brown weather
Qtz Felsp Bi Gneiss. Felsite - Pegmatite
Bands with Dark vein like intrusion
Cross cutting Gneiss & Pegmatite.
Photos taken on Ground & from
air. No sign of intrusives in
moraine. Specimens of Acid. Basic Gneiss
& Ordinary Gneiss + 2 Lichens

Mt Rees   Poor exposures away to
Northward [illegible] Picture taken
of exposures

Clarke Ridge   Exposures on northward
side only. Photos taken. Banded
[illegible] gneiss which [illegible]
[illegible] cut by [illegible] horizontal
dyke. Qtz felsp. ? [illegible]
[illegible] veins. Picture taken

Picture taken at Mt [illegible] Clarke Ridge
& [illegible] Not Banded like Clarke Ridge

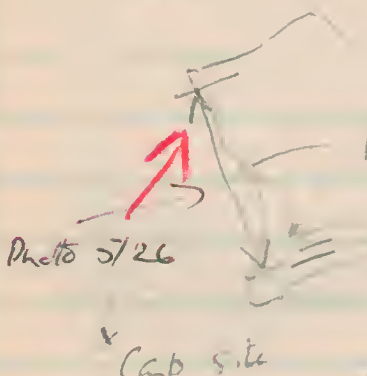
Armanini Nek Th 14 Jan 7128/0305
Very soft pink rock found in
Moraine. Some darker coloured
[illegible] bed rock very soft
generally & Salmon pink coloured

On ridge black & white banded gneiss
Strike along ridge and dip [illegible]
White bands Qtz Felsp Black Hbl. Gnt
or Hbl Biotite Also [illegible]
Qtz Felsp Pegmatite bands with
finer grained Q-Felsp Hbl centres
Specs. Gneiss T 1
7128-0301 Inner Pegmatite T 2
7128-0302 Photo Pegmatite crossing ~~Note~~ Photo
7128/5/24

Up slope rocky mountain face.
Strike and some dip [illegible] some dip (
and tight folding can be seen
Rock types similar but a more
303 basic hornblende - bearing gneiss is
seen with a finer foliation than
other gneisses.

[illegible] manner
in Biotite Gneisses and mixed
with others Hbl rich Photo 5/71/25
Photo taken at Slave on ridge
Photo 5/24 showing gneisses massive pegmatite
cross cutting band and possible
folding in back ground Basic
(7.304) Dykes are seen ~~occasionally~~ in
banding the gneisses They appear
contemporaneous with the rocks and
are cut by the pegmatite bands

Specs T1 - T5



Along ridge strike
of rocks remaining
about EW as in
site (see above)
Alternating Dark
Hbl - Gneiss Basic in leucocratic-
coloured Hbl/Bi Qtz feld Gneiss
intruded by some considerable 9
in places cross cutting pegmatite
bands with coarse Qtz felsp & Biotite
and finer grained Hbl + Qtz felsp Pegm

Photo 5/26 – Pis 5/24

Collected [illegible] [illegible] [illegible]

2 Specs of ~~[illegible]~~ from D[illegible]
rock taken [illegible] [illegible]
[illegible] in [illegible]. T6–T7
and 7A

Specimens of Dark Hbl Felsp Gneiss
taken T7A – T8 – T9
(7128·0300)

Biotite Felsic Gneiss T 10

There are [illegible] Pegmatitic pods
or segregations of Garnet Bi Fels
rock of which T 11 is a specimen.
Possible ultramafic rock ? [illegible]
was found in [illegible] of
of ridge and was collected as
spec T 12. Uncertain whether
or not is in place but collected
for interest.

Friday 15th January 1971

North End of Armanini Nbk.
Granite Qtz Felsp Gneisses alternate Nuk
with Hbl - Felsp Gneiss generally 5/27
highly folded and ~~cut by~~ near
vertical Dips strike about E-W
Horizontal Hbl - Qtz Felsp Dykes
Cut across these foliated beds
and themselves have pegmatitic
like selvages.

Photo taken of South face
of N Peak showing Horizontal dyke
cutting across general bedding, ~~Photo~~ 10
as emphasised by hard band 5/~~28~~
of granitic gneiss that stand out Photo
from the more basic gneisses. 5/26

Spec T13 Granite Gneiss 27
T14 Dyke Rock Picnic at
camp

On North Facing Side of Nunatak
a good fold nose was seen
and the highly foliated nature

of the rocks formerly ~~was~~ suspected was confirmed. A photograph was taken and should show good axial plane cleavage (27)

Also a photo is taken near where a dyke that shows some basic gneiss, (28)

Generally the acid and basic gneisses were in separate and distinct outcrops but some hybrid types were seen Specimen T15

Specimen T16 is of an acid gneiss type

4) On the Northwest facing side of the Nunatak the pattern of Acid and Basic gneisses cut by sub horizontal dykes was continued,

Specimen T17 ~~[illegible]~~ collected from a Calcs rich outcrop on North facing side of nunatak. Rocks include Diopside rich type containing Diopside and Red ((Calc rich?) Garnet. Also a Calcite rich type with Green Diopside and Red Garnet. Confirms that the rocks are probably metamorphosed sediments

Photo 29.
B of camp

Saturday 16th Western Nvk of Armanni Group

Strike about E–W Hybrid type gneisses originally basic but with felsic lenses bands and augen are intruded by orange coloured dykes of hbl ~~[illegible]~~z felsp rock with Qtz Bi Felsp pegmatites intruding the dykes possibly as late stage of activity. Gneisses also include some purely granitic gneisses (Bi - Qtz Felsp) as in rest of Nvk →

Gneisses very intensely folded among themselves and some fault lines or movement lines were observed. Also evidence of movement along lines of dyke intrusion. Development of Qtz Felsp Augen not uncommon near T18 where spec T18 was collected and T19 is a development in one of the pegmatites intruding the dykes in the area of T18 Photos taken of folding a top ③① west facing face (32, 33) of N. Armanini Nk. Evidence for movement along dyke line, Fault Line. ③④ Intrepid Asnt ③⑤ Snow patterns. ③⑥

Specimens T. 18 Gneiss with basic bands & Qtz Felsp bands
T 19 Pegmatite.

Photo	5/71/30	Movement along dyke
	31	Small fold here
	32	Banded gneisses in Wface
	33	"
	34	Small Shear

Saturday [illegible] Apr

Photo taken of pink and black migmatites that outcrop tightly folded almost ptygmatically on the first peak visited (see map)

The migmatites are irregularly but approximately conformably intruded by whitish pink highly weathered coarse Bi-Qtz Felsp dykes. Many rocks show good folding structures and lineations but as usual outcrop is not good and in situ rocks rare. Thus detail sketchy only but strike of fold hinges is approx as shown and axes dip to N approx

Peak 2 Outcrops of Acid and basic migmatite gneiss with massive pink intrusions of Qtz Bi Felsp Dykes ~~sometime~~ in places pegmatitic other places almost granite like Pink Feldspar crystals developed in some gneissic granites and whole complex is intensely folded into very sharp almost slump like contortions ~~with~~ Generally recumbent folds with fold axes striking NW and approximately horizontal axial planes but picture greatly complicated by thickish - up to 20ft wide - intrusions of granitic dykes which are generally coarse grained Bi-Qtz felsp in places Pegmatitic while some outcrops show that Pegmatite activity later than general dyke intrusion but not much so for the two - pegmatitic and non pegmatitic have differing boundaries where there is contact. Numerous photos taken of pegmatitic type

folds into the fold noses
in which in places there
is intruded basic pods which
contrast markedly with the
ordinary dark hbl 3' gneiss
part of the migmatite complex.
Post dyke faulting is
indicated by fault gouges
in which serpentine like the
gouge rock is found and
these gouges form deep chasms
in the migmatite complex

3 specs collected
T20 Specimen of dyke rock
Bi Qtz 2 Felsp (1 pink) in
[illegible] rock — grained [illegible] [illegible]
T21 Pegmatite with Felspar
[illegible] [illegible] with metallic mineral
from near contact [illegible] [illegible]
T22 Rock of basic
pod found in the fold nose near
contact [illegible]

T 23 Qu magnetite banded (gds)
quartzite

T24 Pink 1 mm stripes magnetite
with B. Qtz Fels (2 Fels) [illegible]
rock [illegible] felsic [illegible]
body

T25 Augen type gneiss and
dense [illegible] with large pink feldspar
porphyroblasts. Also fine grained
B. Qtz Fels [illegible] & pegmatite
vein T26 [illegible] & [illegible]. Note
[illegible] porphyroblastic [illegible]
[illegible] [illegible] [illegible]
Stripe [illegible] magnetite [illegible]

T 25 Augen type gneiss with
large 1 cm [illegible] porphyroblasts
and fine B. Felsp [illegible] containing
[illegible] weathering [illegible].

T26A Darker more banded magnetite
of 24 with pinkish brown &
bands of felsp-[illegible].

Nunatak nr Camp

N ~~East~~ End Strike 005 Dip 30°E
S End Strike 030 Dip 15°N.E

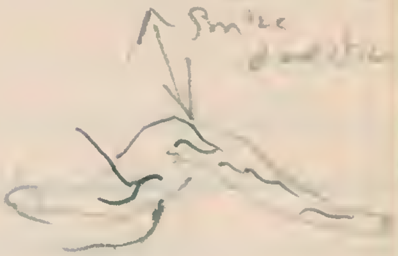
Generally dark gneiss, partly migmatised with large pink feldspars developed in dk banded gneisses that are intruded by dykes (B. Qtz Felsp) that are themselves cut by pegmatitic veins & dykes of similar composition. Strike and dip in the dark banded gneisses swings as illustrated. Bands are fairly regular but disturbed locally by the intrusion.

Specimen of Gneiss with pink feldspar T 27.

Schmitter - Gleeson Area No 4

Migmatized Amphibolite with Pegmatitic dykes (Bi. Qu. Felsp) intruding. On S.W face photo 6/24 taken of flexure like structure showing differences in alteration intensity. Specimen of migmatized & un migmatized rock. T28-29

S.W face.

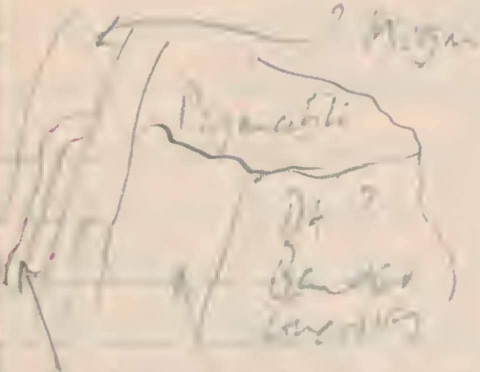


Strike of rocks probably parallel to fold axis but a dif [illegible] due alteration

Photo of [illegible] [illegible]
Same [illegible] 6/25

Roar 5. No good exposures
but seen B. Qtz Felsp gneisses
with pink pegmatite intrusions
and migmatitic development

Mt. Gleeson. Top not accessible
but photos take of colour banding
on N.E face


? Migmatite
Pegmatite
Dk ?
Banded
Gneiss
Dk Banded Pink gneiss
gneisses
migmatite

Sketch of N.E
face Mt Gleeson

Dk Banded gneiss
possibly contain
sillimanite near the
contact. False Band
No attitude determin
possible but Xenoliths in dykes
aligned with colour bands on hillside

On way down Mt Gleeson
large blocks of [illegible] dyke type
rock seen with inclusions of

grain Bi Hbl Sil Gneiss —
considerable evidence of assimilation of
basic rock by acid to give migmatite
type but partial Difficult to see
whether broken in place or not
but ~~[illegible] has it~~ — more
[illegible] beginning to be long as
at [illegible] and [illegible]
One has a real difference of
rock within migmatites and [illegible]
Spec collected Photo taken T30
6/30

Area where road on left side is
nearby quite fine Gnt Bi Qtz Felsp
Gneiss (of Chase Mountain) intruded
by Gnt Bi Qtz Felsp dykes, with
Bi – Qtz Felsp pegmatite.
Spec collected Photo taken T31
6/31

At 5 [illegible] on NE side that
[illegible] pinkish Gnt Bi Qtz Felsp Gneiss
appears as bands striking, [illegible]
Photo taken of it cut by Bi
Qtz Felsp Pegmatite (B. [illegible])
6/32

and the Gnt Bi. Qtz Fellsp Gneiss
seems to have inclusions of
basic gneiss in it markedly oriented
suggesting that gneiss been mobilised
Gneiss in places are more light
pink more and is more migmatitic
It also includes basic gneiss
parts and xenoliths Specimen collected
of the migmatitic rock

The pegmatite dyke cuts
across the dark pink Gnt Bi Qtz Fellsp
Gneiss and the Gneiss itself has
a selvage against the country
rocks mainly Biotite + ~~[illegible]~~
in places Bi - Gnt. See Sp. T32
T33

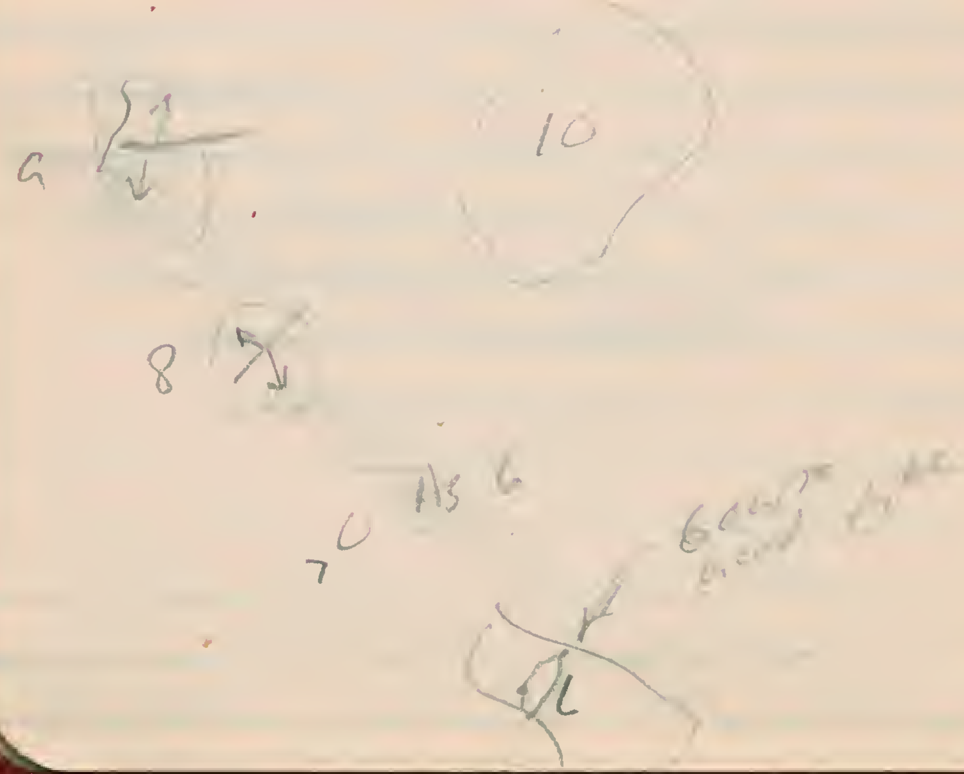
6/33 Photo taken at Nth Edge of Glen [illegible]
from the Southern Side of it

T34 (2 specs) ? Sillimanite gneiss

T35 Basic Gneiss type
possible with Sillimanite
and Hbl Qtz Felsp Gneiss

Peak No. 6

Dark basic gneisses intruded by medium pink Gnt Qtz Felspar aplites & pegmatites. Basic gneisses in places almost granitized and in most places there are relict bands & lenses. Specimen taken of Pink - brown coloured Hbl. Qtz Felsp (Pink) gneiss which is probably showing conversion at advanced stage. T40



Peak 7

Bio Migmatitic gneisses with pink [illegible] associated with pegmatite & Bio [illegible] & [illegible] [illegible] [illegible] & [illegible] Bio Felsp [illegible]. Gneisses & [illegible] [illegible] banded & [illegible] banded gneiss. Greatly [illegible] the [illegible] [illegible] etc [illegible]

Peak 8 Coarse [illegible] migmatite with large pink intruding [illegible] [illegible] and [illegible] [illegible] & pegmatite throughout the [illegible] and [illegible] through the peak. Transition from Banded Gneiss to banded gneiss → Migmatite Clearly seen

photo 6/34

Peak 9 Sillimanite [illegible] in the banded gneiss. Migmatites very acutely folded Ptygmatic type folds. Intruded by [illegible] pegmatitic veins. Folds also [illegible]

Rock 19

Dark basic gneisses show
various stages of alteration
to Pink-brown Porphyritic
& Qtz Felsp gneiss. Collected
a piece to illustrate this. As in
other places intrusion of [illegible]
of [illegible] in places. Pegmatite
acid dykes cross cut and interleave
with the gneiss giving the
whole a migmatitic aspect
Bands of gneiss appear to dip
to [illegible] but have been many
local disturbances to this.

T36 - 37 - 38 - 39

Show conversion series Basic
gneiss – Porphyritic Hbl – Qtz Felsp
Gneiss (Felsp porphyroblastic.

Photo 6/35

[illegible] ?)

Shows the basic gneisses & various stages of conversion by ? Granitisation to Migmatitic gneisses or Granite. All intruded by pink Bi. Qtz 2 Felsp (? [illegible] [illegible]) Dykes & pegmatites.

Where the original basic gneiss discernible in places but very much confused by granitisation & intrusion.

Specimens Migmatite See note
Pegmatite over
?
Basic Gneiss
[illegible]

Pegmatites all have 2 felspars but [illegible] now thought to be migmatites almost wholly converted to Granite. At N.W. End : pink felspar and there are black & white banded gneiss with Bi-Qtz-Felsp and pegmatite.

T41 Banded migmatite [illegible] [illegible]
bands Bi-h rich [illegible] felspathic
related to [illegible] [illegible] and [illegible]
thought to be intrusive

T42 Pegmatite with Bi-Hb 2 Felds
including a pink felspar

T43 Unchanged coarse granite

T44 Basic gneiss with large
pink Felspar developed

Co-ord. 2100300
397900

[illegible]

Black basic gneiss &
black & white striped gneiss
intruded by massive pinkish
weathering but whitish when
fresh Bi ?Hbl Qtz Feldsp dykes
generally quite coarse grained
that stand off slightly in
among the gneiss.

Gneissic foliation not very
evident except very close to intrusions
and general absence of pink
pegmatites in the dark gneiss
[illegible]

Looking back at peak 11
pinkish colouring of main bulk
of peak gives way to black
& white colouring going north
along the S.W facing face
Photo taken 7/2, 7/3

Specimen - see over

T45	Banded Gneiss with grey band
T46	Basic Gneiss
T47	Bi Qz Felsp Pegmatite (2 specs)
T.48	Striped Gneisses with Pegmatite
T49	Fine banded gneiss, partly invaded with pegmatite

See photo 7/4.

Schmitter Pk

Basic Gneiss intruded by [illegible] felsic dykes & partly migmatized by them. Strike approx E-W. No large pink felspars seen in brief visit.

Spec T 50 Banded migmatitic gneiss with pinkish felsic bands and grey bands of Hbl-Felsp.

No Good Expos

Map of Mt. Lanyon Area

Mt Lanyon Dips on W
face to N
Colour Banding strikes above
E W but not very good
On East side moraine ice melted
on rock & bevelled glacial surface
Good colour banding seen on
East face of higher western end
of mountain Photo taken
No good exposure seen No
readings made

Mt Meredith
N edge No good
exposures
East end - till between
glacier S & E of Mt Meredith
with valley broken ice
Bevelled ice ledge on S.E
side possibly fault bound

South face Mt Meredith
Very blue melt lake
Attempt made to land at base
of West End Mt Meredith
were apparently regularly banded
metamorphic outcrop in S. face
Not possible Camp on top.

Walk made along top of mountain
on Sunday afternoon.
Basic probably amphibolite
gneiss extensively invaded by
Pegmatite + [illegible] granite
& Quartz Felsp dykes [illegible]
[illegible] [illegible] [illegible]
contact with the [illegible]

Dykes [illegible]

In among these roughly
migmatitic rocks there are silica
+ quartz concretionary rocks.
Shows [illegible]. Although [illegible]
outcrop of this rock uncertain.

Specimen T51 collected showing coral-like concretion.
? Is this silica rock - which is quite well bedded in fact can even be a [illegible] - remnant of previously overlying sediments.
No other evidence of [illegible]

Interbedded with metamorphics are quartzites that look almost sedimentary. Certainly not extensively metamorphosed cf. Basic rocks.
Specimens. T52
Other specimens of Qtzite collected are possibly sedimentary but one [illegible] seem to negate this.

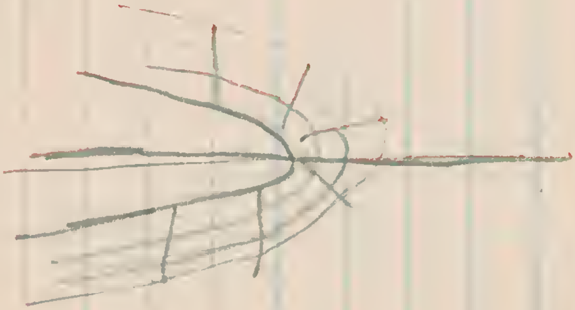
Dips along the Meredith [illegible] to vary slightly in direction but no much notable change throughout. On return walk numerous rodded lineation and folded pebbles of gneiss were seen

Spec 783 — Quartzite rock
showing some signs of
metamorphism

Monday 1st Feb
W. End of Mt Meredith

In morraine rocks gneiss showing lineation and foldings particularly the old basic gneisses. Some also show folding structure suggestive of intraformational fold

Faces on S.W end of the show intense folding in basic gneisses that are extensively invaded by Pink-brown Bi. Gr. felsp dykes known as [illegible]
Folding axes || to the axis of Mt Meredith and



[illegible] I [illegible] [illegible] of [illegible]
rod also of Intruding acid rock
in basic

Fold axes near horizonta
but dip slightly to North.

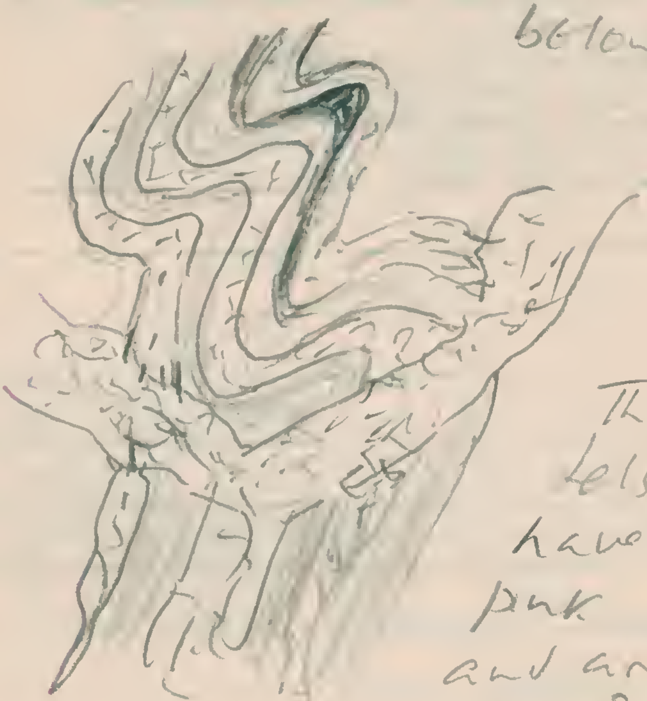
Fold axis directions (Magnetic
282
300
286
290

Fold limbs all dip
to N. Some almost
flat others about 65°

At crest and near crest fold
axial planes & beds (where
folds can be observed fresh(?)
dip almost constantly 45° N striking
290

Most of Acid ribbons appear
penecontemporaneous with folding
as there are acid veins and
bands conformable with the
and interleaved with the basic r

Basic gneiss. These [illegible] do not contrast greatly and have diffuse contacts with felsic dykes that cut across the structures. This only observed at a distance but fairly certain. See illustration below



This dykes and felsic bands have a lightish pink colouration and are mainly of B. - Qtz Felds with Scapolite in some specimens. - T 54. (3) One of the spirs shows partial resemblance of basic gneiss

In among the basic gneisses
particularly near fold noses there
are pods of basic material that
are foliated and have . been folded
T 55

Some gneisses particularly basic
show good lineation direction
of folding
T56

T57 Gnt Bi Qtz Feldsp Gneiss
(2 pieces)

There is a second type of felsic dyke weathering pink brown that cuts across all the gneisses of the Bi Qtz Felsp dykes that came place contemporaneous with the folding. Specs T58 and of this rock which strikes approx N and dips west at about 60° This would appear to be a felsic → intrusion and two such dykes were located

Rock fine grained and quite well jointed & foliated. Generally uniform in composition it shows no signs of the assimilation of the other rock types shown. Do the other [illegible] [illegible]

Conclusions Mt Morrison

[illegible] line in [illegible]
Wednesday 3rd Feb

Dip 45°N

Strike 255 (Magnetic) Approx
line [illegible] [illegible] and N.E corner
Fisher Museum)

White foliated coarse grained
Qtz Feldspar rock with long streaks
of ?Mica (?? Biotite) and blebs and
bands parallel to the bedding
(main foliation) of Biotite-Garnet
segregations Garnets purplish pink
and clear

Specs T59 to 61

Near east end blackish band
probably dolerite striking as above
Spec T 62 Distinctive ring when hit
with hammer Columnar
jointing, is intrusive

Close by and along all [illegible]
dip [illegible] [illegible] in Acid [illegible]
Bi-Qtz Felsp gneisses (there [illegible]
[illegible] seen later)

[illegible] [illegible] [illegible]
on [illegible] by Meredith

~~Spec [illegible] tt~~

Spoon 7 B2

Outcrop of white quartz-silica cementation, light rock bound with a sandstone type rock in two colours some of possible back water [illegible]

Brown sst rock equal to the [illegible]

Green sst rock possibly brown glauconite sst. Spec ~~collected~~*

Conglomerate white rock found in yellow earlier in the Meredith

Photo taken Strike along meridian
Dip 40° S

Green sst rocks later found again along intrusive dykes and probably associated with the

37

likewise Brown stains ssl like rock

Specs collected of both types

T 63 Brown Rock
T 64 Green Rock

[illegible] [illegible] folded are
axes with lighter bands (apex)
but very strong lineations // to
the fold axis)

Fold axis strikes about 300(14)
(along the length of the Mountain)
and the axes are invaded by
acid dykes (white weathering)
that appear to be almost
contemporary with the folding
in that they do not substantially
alter the gneiss ~~at the~~ when in
contact with them. Nonetheless
the acid dykes contain folded
limbs of gneiss and are therefore
post folding at least a little.

Most of the granitic dykes intruding
the folds are foliated - sometimes
with layers of biotite emphasising
the foliation. The lineation seems
up parallel to the fold axis
* T65 Spec collected granitic rock
* T66 Specimen Basic Gneiss

[illegible] [illegible] [illegible] [illegible] in
foliation and lineation and some
therefore pre-folding. Spec T67

Other Striker measured about
30° - 40° to length of the
Meredith and dipping 30° E
Possibly other type of folding,
?later than that whose axis
is ∥ to that of the Meredith

* Specimen collected of intrusive
that has brittle blebs ([illegible])
T68 / T69 Another spec [illegible] p 38
[illegible]

On way down mountain
side outcrop of a fine grained
granitic dyke with no inclusions
and no foliation. Very similar
to T58.

* Spec collected T70
Also specimen of white
* Si looking rock outcrops nearby T71

In moraine

T72 Hbl, Gnt Felsp Gneiss

T73 Porphyritic Basaltic rock.

Granitic rock type noted as very prolific in moraine. Brown red weathering boulders

Sat Feb 5th

1st Outcrop – Slightly foliated Fg Hbl - Bi - Qtz Felsp Granitic type rock. Common in moraine weathers brown colour. Possibly hill talus but difficult to say

2nd White weathering well foliated Bi - Gnt Qtz Felsp Gneiss. Bi - Gt in blebs ∥ to foliation.

Foliation vertical

Strike ∥ to long axis of Mt.

up to [illegible]
almost same as Bi and the
dips as low as 60° to N. (M)
Speckled foliated [illegible] invade
the gneisses and some of
the basic gneiss [illegible] hypers
are [illegible]. These include
Gar Bi - Mu Feldsp gneiss to
basic bands.

Also possible second lot of
intrusions cut across the gneisses
but did not see good contact exposed
between two intrusive types.

Spec Collected T75 Speckled Intrusive
T76 Unspeckled.

Speckled intrusive cuts Gar Bi
and foliation is // to strike
of gneisses. Gar-Bi Qtz Feldsp
Pegmatites irregularly pervade
intrusives. Usually about 1' thick
up to 3' thick

Outcrops of spotted granite gneiss
grade into Gnt [illegible] [illegible]

Photo taken of contact between
granites & Gneiss (Basic Gneiss
[illegible] Gneiss T80

Stream Concentrates, [illegible]
[illegible] [illegible] Strike 290 T82

All Strikes around 290–310 [illegible]

Gnt. B.
Outcrop found – Photo of Gt2 – [illegible]
Gneiss with basic streaks and pods
mainly ~ 8–10m parallel to the
primary foliation.
Strike 210 on dip 62° towards
west [illegible] [illegible].

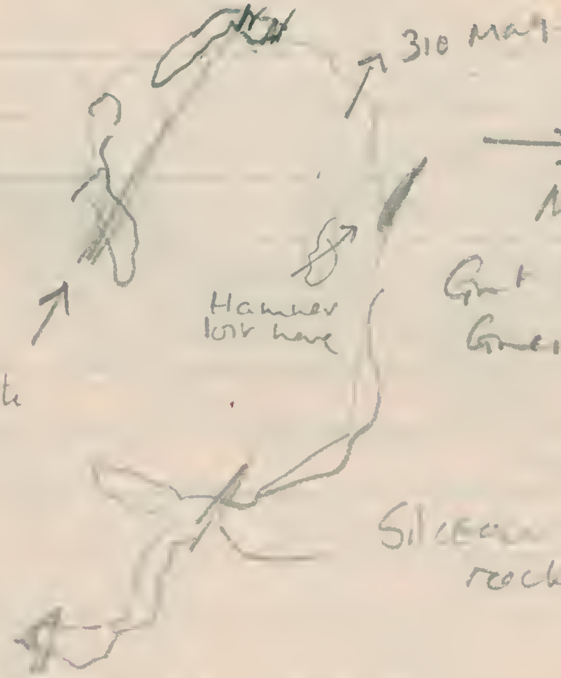
Dip and strike remain at 290'

A(i) Spotted rocks possibly present along [illegible] to boulder these rocks [illegible] near camp site. Spotted rocks grade into [illegible] gneiss is [illegible] and [illegible] brown weathering gneisses with black bands.

Along right Rim of Glacier Moraine strike of gneiss keeps fairly constantly to 300-320 Mag. They are strongly injected by spot weathering granite. [illegible] in places with 2-Garnet schist. Dips of gneisses and [illegible] enough later reveal that the gneisses are completely folded with the fold axial planes striking 310

At Nor West End of Glacier basin 2 pieces of possible

Calc silicate rock coloured T81


310 Mag
N
Mainly Gnt Bi-Hb Qtz Felsp Gneiss
Hammer lost here
Sillimanite Gneiss
Siliceous calc-silicate rock. (T82)

Possible Sillimanite gneiss seen T79 at NW end of Glacier basin also at East end of Southern arm continuing strike direction.

Strike similar to that indicated by folded quartzite & siliceous band.

Acid intrusives appear to grade from banded types of acid gneiss to foliated gneiss with Bi-Gnt spots to foliated gneiss with side branch to Gnt-Qtz-Felsp gneiss. The foliation is quite definite but quite distinctive from that in the acid gneisses with Bi-Gnt blebs that the intrusives invade. However the similarity in composition possibly indicates that the types are acid gneisses that have been mobilised.

Specs Banded acid intrusive	T 74
Spotted Foliated intrusive (2)	T 75
Foliated intrusive (2)	T 76
Gnt Bi Hbl Qtz Felsp Acid gneiss with banding	T 77
Gnt Qtz Felsp Gneiss (2)	T 78
Sillimanite Gneiss	T 79
Gnt Bi Hb Qtz Felsp Gneiss	T 80
Calc Silicate rocks (2)	T 81

[illegible] T 82
[illegible]) T82

At N.W. corner of Glacier basin very interesting face photographed by telephoto lens from Northern rim of basin
Turns out to be Gneisses
— Acid, Sillimanitic, Basic Gneisses intruded by the acid dykes mentioned above. Also basic pods as noted in East end of Mt. Meredith.
Specimen T 83

Photo taken from S side of North face to show folding

Also photo of random gneiss face taken along the rim of basin and spotted gneiss

1 Specimen of Bi-Qu-Felsp Gneiss with Qz Fel band T 84

Dark grey [illegible] T 78 closely resembles T 71 but T 78 definitely intrusive

Very like Goodspeed Nks rocks

R.J.T. 14-1-74.

T 85. Possible sillimanite gneiss or hornfels from near contact with banded gneisses. S. side of glacier basin

T 86-89 Interesting rocks ? possibly sediments picked up in Moraine. Moraine seems to consist of rounded pebbles set in grey green mud. Moraine on glacier is not recognisable in ground. Rocks on ice ? picked up on glacier edge near SE end Mt Meredith.

T 90 Spotted Granite for possible age determination

[illegible]

Granites intrude Gneiss. Fine apparently along length of hill as far as can be seen.

Specs T91 Granite
92 Gneiss
93 Gneiss

Till near S.E. hill Appears to rest on dirty striped ice not rather as previously thought [illegible] 1 [illegible]

Finely banded green [illegible] gneiss with calcite rich bands and other rich part are invaded by Qtz Feldspar [illegible] and [illegible] that are mainly conformable Dip 60°N at regular banding.
Some obvious fine folds in the gneiss and irregular banding to be seen in granitised bands which show remnant same folds and banding. Also foliation [illegible] [illegible]

T98 Granite band & basic Gneiss
T99 Banded Calc Gneiss showing folds
T100 Banded Calc Gneiss showing folds
T101 Well foliated Calc Gneiss
T102 Massive Calc Gneiss

Nilsen Rocks

Very complex folded amphibolite and basic gneisses extensively invaded by Quartzo-felspathic material which in places gives a whitish granite probably by replacement process

Terrain very typically glaciated by the ice sheet

Southern part – Moraine only

T 103 Basic Amphib. Gneiss
T 104 Banded Acid Basic Gneiss
T 105 Foliated Granite

[illegible]

Gneissic granite with basic pods and Granulite, striking about 300m (along ridge) is invaded by black dolerite dyke.

Granite charnockite type

T94 Coarse dyke rock
T95 Basic Gneiss
T96 Fine dyke rock
T97 Charnockite Granite

[illegible]

Well banded Grt Bio Felsic gneiss
with some variations in amt. Grt
but generally homogeneous
Slight stretch of gneiss at
Bio Folds sub parallel to
banding but no intrusive
[illegible]

(Now Else Platform)

Anorthosite platform — very well
colour banded. Rock Grt
bearing gneiss with amphibolites
some intrusions cut by white
Pink pegmatite dykes

Retreat pt. Moraine covered
Sandstone outcrop. Str checked

White Marsit. Grt rich gneiss
on NE corridor to Charnockite
at S.W. Extensive intrusion
of gneiss by granite

dykes sub parallel to gneissic banding. These show [illegible]
Some evidence

Mr McCartney

Brown weathering granite intruded by white dyke

Dyke through [illegible] to the north

Locally parallel to the main

[illegible]

10 knots 8420 v10

+10

8/18.

NY 32 +5 8/a 150

200 yds +5 85%

TERRY
Bob

Ampol Ex	1.25
Poseidon	$ 35
C.R.A	10.90
Minsec	Suspension
Western Mining	4.20
Norseman	.90
N Kalgoorlie	1.45
B.H.P	12.60
Ampol Oil	1.10
[illegible] Min	8.50
Geloa	18c
Gt Boulder	2.70
Hamersley	4.70
Metals Ex	5.20
Mt Isa	3.80
N.B.H	13.50
Nulla	
Oil Search	.27
Peko	9.70
~~Planet Oil~~	
Tasminex	80
United Ur	48

13th Lamont Armagh [illegible]
14th Geo 2 3 mares
15th Copter to Mansa
21st

Camping Gear. Dust Pan needed
Piece of wood for stove
to stop rolling.
Chop Box including Kettle, Coffee Pot

In old kits too many packets

In New Kits Cocoa
Bovril Reqd

Mat drawing Sheet B
Beam Compass
2 Lead Pencils
2 Chinagraph Pencils
Roll Paper towels
Jar Vegemite
Pkt Tea
Cheese
4 tins Fruit
4 tins Orange Juice
3 tins cooked meat
2 mugs
(1 gallon Kero)
Pkts orange powder
4 Lamb chops
4 Steaks
4 pkts soup

[illegible] 2 [illegible]

1/8 scattered 5·15 knots N.1 draft +18°F

10 miles 74% 1431 [illegible]

Mr Propper to Jones

2 [illegible] [illegible] [illegible]

with Tree

Wouldn't [illegible] [illegible] [illegible] be there

[illegible] [illegible] [illegible] [illegible]

Send [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible] [illegible] the nit

OHP

[illegible] [illegible] [illegible] [illegible]

BBR

177 Elizabeth St Sydney

[illegible] [illegible] [illegible] [illegible] [illegible]

English [illegible]